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EXAMINER	
ESTRADA, ANGEL R	

ART UNIT	PAPER NUMBER
2831	

DATE MAILED: 12/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/904,747	WIDMAN, JAY E.	
	Examiner	Art Unit	
	Angel R. Estrada	2831	

-- The MAILING DATE of this communication appears on the cover sh et with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 August 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Uber (US 1,824,642).

Regarding claim 1, Uber discloses a sealed conduit system (see figure 1) comprising: a metal conduit (1,2; notice the cross section hatching it resembles a metal element) having at least one end (see figure 1); a housing (14) having an inner chamber and an outer surface (see figure 1); at least one free running hub (3,4) coupled to said housing (14) and the at end of said metal conduit (see figure 1); and a flexible membrane (9) disposed within said at least one free running hub (4, see figures 2 or 3).

Regarding claim 5, Uber discloses the sealed conduit system (see figure 1), wherein the housing (14) is defined by a mid-section, which is substantially cylindrically shaped (see figure 1), and two free running hub (3,4) is disposed on, and mounted to, opposite end of the mid-section (see figure 1).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uber (US 1,824,642) in view of Cameron (US 5,560,655).

Regarding claim 2, Uber discloses the claim invention except for the sealed conduit system comprising means for purging any air, other gases or moisture, which may be trapped within the inner chamber of said housing. Cameron teaches a housing for electrical conduits (18, 20) that includes means (11) capable of purging any air, gases or moisture which may be trapped within the inner chamber of said housing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide to Uber's housing with means that can purge any air or moisture trapped within the inner chamber of said housing as taught by Cameron to improve the sealing of the conduit.

Regarding claim 3, Cameron teaches the purging means (11) comprise a threaded port (40) formed in the housing (12) and a threaded plug (11), which is adapted to mate with said threaded port (see figure 1 and 3).

Regarding claim 4, Cameron teaches the purging means (11) being a spring-loaded ball-type valve (see figure 4).

3. Claims 6-8, 15, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uber (US 1,824, 642) in view of Hutchison (US 4,301,325).

Regarding claim 6, Uber discloses the sealed conduit system (see figure 1) wherein the free running hubs (3, 4) are partially conical in shape (see figure 1) with an inside surface; but Uber lacks the inside surface having a first set of female threads formed thereon for mating with the ends of the metal conduit. Hutchison teaches a sealed conduit system comprising a conduit (2) having at least one end, a free running hub (4) having an inside surface which has a first set of female threads (see figure 1) formed thereon for mating with the end of the conduit (2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make Uber's hubs inside surface with a first set of female threads as taught by Hutchison to provide means that would firmly secured conduits with treaded ends to the hub, or to firmly secured Uber existence conduits to the hubs.

Regarding claim 7, Uber discloses the sealed conduit system (see figure 1) wherein the inside surface of the free running hubs (3, 4) has a second set of female threads (see figure 1) formed thereon for mating with the ends of the cylindrically-shaped mid-section (14) and a shoulder (see reference number 6' for illustration purposes only) adjacent to the second set of female threads (see figure 2).

Regarding claim 8, Uber discloses the sealed conduit system (see figure 1) wherein flexible membrane (9) is disposed on the inside surface of each of the free running hubs (3, 4) adjacent to the shoulder (see figure 1 and 2).

Regarding claim 15, Uber discloses the sealed conduit system (see figure 1) comprising a metal conduit (1,2) having at least one end, housing (14) having an inner chamber and an outer surface (see figure 1); at least one free running hub (3,4) having

an inner surface and a coupling (see figure 2), wherein the coupling comprises a set of female threads (see figure 1) formed on said inner surface for mating with the ends of the housing (4); and a flexible membrane (6) disposed within said at least one free running hub (see figure 1); but Uber lacks a set of female threads formed on said inner surface of the hub for mating with the at least one end of the conduit. Hutchison teaches a sealing conduit system comprising a conduit (2) having at least one end, a free running hub (4) having an inside surface which has a first set of female threads (see figure 1) formed thereon for mating with the end of the conduit (2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make Uber's hubs inside surface with a first set of female threads as taught by Hutchison to provide means that would firmly secured conduits with treaded ends to the hubs, or to firmly secured Uber existence conduits to the hubs.

Regarding claim 17, Uber discloses the sealed conduit system (see figure 1) wherein the housing (14) is defined by a mid section, which is substantially cylindrically shaped (see figure 1), and two free running hubs (3,4) are disposed on, and mounted to opposite ends of the mid-section (see figure 1).

Regarding claim 18, Uber discloses the sealed conduit system (see figure 1) wherein flexible membrane (9) disposed to a shoulder (6' for illustration purposes) formed in the inner surface of the at least one free running hub (3, 4) proximate said second coupling (see figure 1).

4. Claims 9, 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uber (US 1,824, 642) in view of Klein (US 4,456,784).

Regarding claim 9, Uber discloses the claimed invention except for said sealed conduit comprising a polyurethane-based epoxy sealant compound disposed within said inner chamber. Klein teaches a sealed conduit system (19) comprising a housing having an inner chamber (see figure 3) filled with polyurethane-based epoxy sealant compound (6). It would have been obvious to of ordinary skill in the art at the time the invention was made to fill Uber's inner chamber with a polyurethane-based epoxy sealant compound as taught by Klein to improve the sealing of the conduit by providing a barrier against the flow of vapor through the sealed conduit system.

Regarding claim 10, Klein teaches that said polyurethane-based epoxy sealant compound (6) comprises a polymer and a monomer (column 3 line 9-38).

Regarding claim 13, Uber discloses a method of sealing a metal conduit (1) comprising the steps of coupling a sealing apparatus (see figure 1) comprising a housing (14) having an inner chamber and an outer surface, at least one free running hub (3,4) having an inner surface and a flexible membrane (10) disposed within the at least one free running hub (3,4) to at least one end of the metal conduit (see figure 1); threading any wires or cables (although the reference doesn't discloses the use of cable or wires, it clearly states that the apparatus can be used in any connection it may be found applicable, column 1 lines 3-5) contained within said conduit (1) through said flexible membrane (10); but Uber lacks the step of filling the inner chamber with a polyurethane-based epoxy sealant compound. Klein teaches a sealed conduit system

comprising the metal conduit (3), comprising a housing having an inner chamber (see figure 3) filled with polyurethane-based epoxy sealant compound (6). It would have been obvious to of ordinary skill in the art at the time the invention made to fill Ubers's housing inner chamber with a polyurethane-based epoxy sealant compound as taught by Klein to improve the sealing of the conduit by providing a barrier against the flow of vapor through the sealed conduit system.

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uber (US 1,824, 642) in view of Bertini et al (US 6,489,554, hereinafter Bertini).

Regarding claim 11, Uber discloses the claimed invention except for the housing being formed of an aluminum alloy. Beritini discloses a sealed conduit system (see figure 3c) comprising a housing (420) formed of an aluminum alloy (column 7 line 10-15). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make Uber's housing of an aluminum alloy as taught by Bertini to reduce the manufacturing costs and provide a housing with good mechanical properties.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uber (US 1,824,642) in view of Kaesser et al (US 3,761,601, hereinafter Kaesser)

Regarding claim 12, Uber discloses the sealed conduit system (see figure 1) wherein the flexible membrane (10) is generally disk shaped and has at least one opening for accommodating one or more cables; but Uber lack the flexible membrane

being formed of neoprene. Kaesser teaches a flexible membrane (34) for accommodating cables (13) being formed of neoprene (column 2 lines 50-53). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make Uber's flexible membrane of neoprene since the used of neoprene as a sealing element, such as a gasket or an O-ring is well known in the art.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uber (US 1,824,642) in view of Klein (US 4,456,784) as applied in claim 13 and further in view of Cameron (US 5,560,655).

Regarding claim 14, the modified Uber discloses the claimed invention except for the step of releasing any air, other gases, or moisture, which may be trapped in the inner chamber after it is filled with the epoxy sealant compound, through a purging means. Cameron teaches a housing for electrical conduits (18, 20) that includes means (11) for purging any air, gases or moisture, which may be trapped within the inner chamber of said housing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide to the modified Uber's housing with means that can purge any air or moisture trapped within the inner chamber of said housing as taught by Cameron to improve the sealing of the conduit and also to provide means that permit the insertion of insulated materials inside the conduit.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uber (US 1, 824,642) in view of Hutchison (US 4,301,325) as applied in claim 15, and further in view of Cameron (US 5,560,655).

Regarding claim 16 the modified Uber discloses the claimed invention except for the step of releasing any air, other gases, or moisture, which may be trapped in the inner chamber after it is filled with the epoxy sealant compound, through a purging means. Cameron teaches a housing for electrical conduits (18, 20) that includes means (11) for purging any air, gases or moisture, which may be trapped within the inner chamber of said housing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide to the modified Uber's housing with means that can purge any air or moisture trapped within the inner chamber of said housing as taught by Cameron to improve the sealing of the conduit and also to provide means that permit the insertion of insulated materials inside the conduit.

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uber (US 1,824,642) in view of Hutchison (US 4,301,325) as applied in claim 15 and further in view of Klein (US 4,456,784).

Regarding claim 19, the modified Uber discloses the claimed invention except for said sealed conduit system comprising a polyurethane-based epoxy sealant compound disposed within said inner chamber. Klein teaches a sealing conduit system (19) comprising a housing having an inner chamber (see figure 3) filled with polyurethane-based epoxy sealant compound (6). It would have been obvious to of ordinary skill in

the art at the time the invention was made to fill the modified Uber's inner chamber with a polyurethane-based epoxy sealant compound as taught by Klein to improve the sealing of the conduit by providing a barrier against the flow of vapor through the sealed conduit system.

10. Claim 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Uber (US 1,824,642) in view of Hutchison (US 4,301,325) as applied in claim 15 and further in view of Kaesser et al (US 3,761,601, hereinafter Kaesser).

Regarding claim 12, Uber discloses the sealed conduit system (see figure 1) wherein the flexible membrane (10) is generally disk shaped and has at least one opening for accommodating one or more cables; but Uber lack the flexible membrane being formed of neoprene. Kaesser teaches a flexible membrane (34) for accommodating cables (13) being formed of neoprene (column 2 lines 50-53). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make Uber's flexible membrane of neoprene since the used of neoprene as a sealing element, such as a gasket or an O-ring is well known in the art.

Response to Arguments

11. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Stagnitti (US 5,466,890), Singletary (US 3,662,087), Boughton (US 2,816,472), Robertson (USA 5,037,318), Risley (US 2,460,032), Johnson III (US 3,424,853) discloses a sealed conduit system.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication should be directed to Angel R. Estrada at telephone number (703) 305-0853. The Examiner can normally be reached on Monday-Friday (8:30 -5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (703) 308-3682. The fax numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-1341 for after final communication.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

AE

November 26, 2003

Dean A. Reichard 12/1/03

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